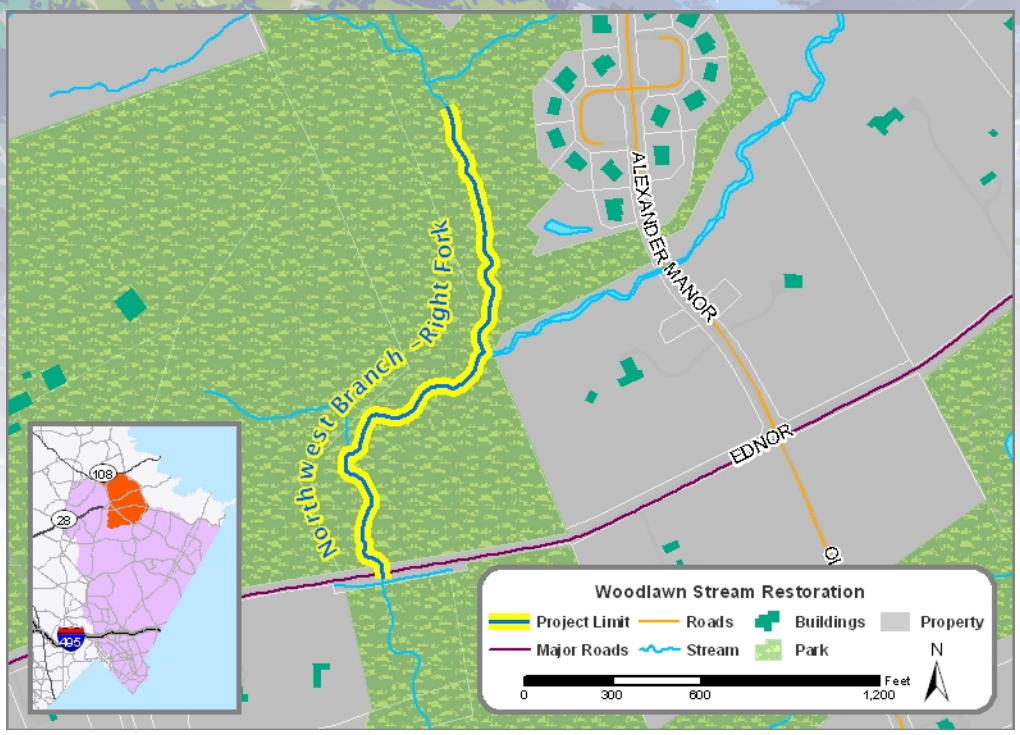
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

Watershed Restoration FACT SHEET

Woodlawn Stream Restoration



Restoration Project Location along the Right Fork of the Northwest Branch (Woodlawn Tributary)

Visit our project website at : www.montgomerycountymd.gov/restorationprojects
Click Northwest Branch, then Woodlawn Stream Restoration

Watershed Facts

Subwatershed Drainage Area : 6.1 square miles
Subwatershed Imperviousness :6%

Property Ownership

Maryland-National Capital Park and Planning Commission

Restoration Goals

To stabilize eroding streambanks to reduce sediment entering the stream, improve aquatic habitat, enhance pool and riffle fish habitat, construct wetlands, create overhead cover for fish, and reforest stream banks for added bank stability and overhead cover.

Restoration Project Facts

Project Length : 0.4 miles

Drainage Area Captured : N/A

Estimated Costs :

Construction $1,002,000, funded in part by United States Army Corps of Engineers (USACE)

Project Status :

Construction planned for fall 2012 to summer 2013

Stream Monitoring Facts

Pre- and Post- Restoration Monitoring will be conducted following MCDEP Monitoring Protocols.

Project Selection

The Northwest Branch - Right Fork (Woodlawn) tributary, along with several other stream reaches, was identified as a priority for restoration in the Northwest Branch Watershed Feasibility Study (July 2000). The Montgomery County Department of Environmental Protection, in collaboration with the Maryland-National Capital Park and Planning Commission and the U.S. Army Corps of Engineers completed three stream restorations for Upper Northwest Branch package 1 in 2011. Upper Northwest Branch package 2 projects include Sherwood Forest, Batchellors Run, and Woodlawn stream restorations, and are planned to be completed fall 2012 to summer 2013.

The Northwest Branch - Right Fork (Woodlawn tributary) showing streambank erosion (on left) and silt deposition (on right) prior to restoration.

Severe streambank erosion prior to restoration of the Woodlawn tributary.

Survey crews measure the geometry and substrate of the Woodlawn tributary prior to restoration. This upstream view shows streambank erosion (on right) and deposition (on left).

This section of the Woodlawn tributary has become overwidened by stormflows, and has very low flows (on right) during normal dry periods. Most species of fish would not be able to migrate upstream under these conditions.

Pre-Restoration Conditions

Much of the Northwest Branch Watershed was developed prior to regulations requiring stormwater management control, and contains a high percentage of impervious surfaces. Uncontrolled stormwater runoff from highly impervious areas creates erosive, high velocity or "flashy" flows that cause damage to receiving streams.

The Right Fork of the Northwest Branch (Woodlawn tributary) is characterized by eroded streambanks, aggraded channel materials, side channel bar formation (especially around present or former debris jams), low flow conditions, minimal access to floodplain and interaction with wetlands, and a general lack of instream cover for fish. The site is generally well forested with adequate canopy cover.

While the Woodlawn site does not currently exhibit serious degradation, there are opportunities, through careful repair and enhancement of habitat, to maintain and improve stream stability that would otherwise continue to deteriorate.

Restoration Actions

Entrance to the site for construction is anticipated from Ednor Road and Alexander Manor Drive. Restoration activities are planned for approximately 2,000 feet of stream north of the Ednor Road crossing. Stone toe protection with plantings will help provide streambank stability and shade for instream habitat. Instream structures will include log and rock vanes which direct water away from unstable stream banks, form downstream scour pools, and provide good habitat for fish. Other planned stream habitat features include rock wing deflectors and riffle grade controls. Trees will be planted and vernal pool wetlands and floodplain access will be created to enhance the riparian zone alongside the stream.

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